METHOD AND SYSTEM FOR FRAME ALIGNMENT AND UNSUPERVISED ADAPTATION OF ACOUSTIC MODELS

ABSTRACT OF THE DISCLOSURE

5   An unsupervised adaptation method and apparatus are provided that reduce the storage and time requirements associated with adaptation. Under the invention, utterances are converted into feature vectors, which are decoded to produce a transcript and

10 alignment unit boundaries for the utterance. Individual alignment units and the feature vectors associated with those alignment units are then provided to an alignment function, which aligns the feature vectors with the states of each alignment

15 unit. Because the alignment is performed within alignment unit boundaries, fewer feature vectors are used and the time for alignment is reduced. After alignment, the feature vector dimensions aligned to a state are added to dimension sums that are kept for

20 that state. After all the states in an utterance have had their sums updated, the speech signal and the alignment units are deleted. Once sufficient frames of data have been received to perform adaptive training, the acoustic model is adapted.

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